

What is claimed is:--

**In The Claims**

Applicant submits below a complete listing of the current claims, with any insertions indicated by underlining and any deletions indicated by strikeouts and/or double bracketing.

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of the Claims**

1. (Currently amended) A method for transmitting digital messages through output terminals (22) of a monitoring circuit (18) integrated to a microprocessor (12), said messages being representative of determined events occurring on execution of instructions by the microprocessor, comprising ~~the step of~~, after or before transmission of at least one specific message associated with a specific event, transmitting a correlation message comprising an identifier of said specific message and a counter of the number of instructions executed by the microprocessor between the instruction associated with the transmission of said specific message and the instruction associated with the transmission of a selected previous message.
2. (Original) The method of claim 1, in which the selected previous message is the immediately preceding specific message.
3. (Original) The method of claim 1, in which the correlation message comprises a correlation message identifier.
4. (Original) The method of claim 1, in which the specific digital message is representative of a data read or write instruction.
5. (Currently amended) The method of claim 1, in which the specific digital message is representative of an event independent from the execution of an instruction by the microprocessor (12).

6. (Currently amended) The method of claim 1, in which the transmitted digital messages are received by an analysis tool (24) capable of associating based on correlation messages an instruction executed by the microprocessor (12) with each transmitted digital message.

7. (Currently amended) A device for transmitting digital messages through output terminals (22) of a monitoring circuit (18) integrated to a microprocessor (12), said digital messages being representative of determined events occurring on execution of instructions by the microprocessor, comprising:

[[a]] means for detecting whether a message to be transmitted by the monitoring circuit is of a specific type; and

[[a]] means for transmitting, after or before transmission of a digital message of said specific type, a correlation message, said monitoring message comprising an identifier of said specific digital message and a counter of the number of instructions executed by the microprocessor between the instruction associated with the transmission of the specific digital message and the instruction associated with the transmission of a selected previous digital message.